Two teams share STS-73 plaque hanging honors

Jimmy Spivey, lead of the Thermal Assessment Team, and Henry Allen, lead for Ground Control, shared the honors of hanging the STS-73 plaque in Mission Control.

The Thermal Assessment Team was recognized for its work on the orbiter thermal conditions. The GC team was praised for its work on Ground To Air TV, Ku Communications Adapter and High-Pac Digital Television Demonstration in the Consolidate Control Center.

JSC
People

Flight Activities Office hangs STS-74 plaque

The Flight Activities Office team led by Gail Schneider hung the plaque in Mission Control for the STS-74 mission. Schneider with her team mates, Nancy Poppel and Steve Remco, were chosen to hang the plaque as a reward for their outstanding leadership in putting together the flight plan that enabled the flight to be implemented as smoothly as it was and due to a late launch slip, the team rewrote the flight plan within the last two weeks prior to flight and managed to get the data on board.

Orbiter Docking System team wins design award

John McManamen, chief engineer of the orbiter docking system in the Structures and Mechanics Division recently accepted the 1996 Design and Engineering award from Popular Mechanics for the orbiter docking system team. The Orbiter Docking System has become a permanent part of *Atlantis* and was used to successfully dock with the Russian Mir Space Station on both STS-71 and STS-74.

"This was a team effort that involved a number of Engineering Directorate, Rockwell in Downey and of course the Russian personnel." MacManamen said. "We all deserve this award because of the technical and schedule challenges. It is really great to be a part of the team that takes the space shuttle program into the International Space Station era."

Spivey

Allen

Schneider

McManamen

MacManamen, along with Frank Alanis, the avionics subsystem manager in the Power and Propulsion Division; Bruce Brandt, Siamak Ghofranian and Alex Murashko of Rockwell; and Vladimir Syromiatnikov, chief engineer of the RSA Energia, accepted the award Oct. 12 at a banquet on the Queen

Roundup goes on-line this week

JSC's weekly Space News Roundup goes on-line this week in an effort to provide more widespread distribution of the official NASA publication.

On- and off-site JSC federal and contractor employees may access the electronic version of the Roundup at the following World Wide Web address: http://www.jsc.nasa.gov/pao/roundup/weekly

The on-line Roundup takes advantage of a portable document file, or "PDF," format and requires the use of a freely available PDF viewer as a helper application complementing World Wide Web browsers such as Mosaic and Netscape. Use of this format allows the Roundup to be viewed exactly as it is presented in print, complete with layout, text, photographs and headlines. Because of memory requirements and font availability, some computers may substitute type styles for those normally used in the Roundup.

Development of the on-line Roundup has been a collaborative effort of the Public Affairs Office's Education and Information Services Branch and the Information Systems Directorate's Internet Services Group.

"In recent years, tightening budgets have reduced the Roundup's circulation, virtually curtailing distribution to off-site contractors and other centers," said JSC Acting Public Affairs Director Jeff Carr. "We hope this innovation will improve the dissemination of information about JSC's programs and activities to our off-site teammates."

The Daily Cyber Space Roundup will continue to be published at the address: http://www.jsc.nasa.gov/pao/roundup/

JSC Photo by Benny Benavides

Employees in the Office of Public Affairs wrap more presents for their adopted families. From left are, Carolyn Fisher and Barbara Tamaro of Hernandez Engineering, Bunny Dean of the Education and Information Services Branch and Gloria Vale, Tammy Porterfield and Leah Elliott of Hernandez Engineering.

'Tis the season

Carolyn Fisher of Hernandez Engineering knows how generous her co-workers can be.

In early November, she asked her fellow Public Affairs Office workers if they would be interested in adopting a family for Christmas. The response was tremendous.

"Gloria Vale and I talked about adopting a family for Christmas in October," Fisher said. "We asked a few employees in early November if they would like to contribute to the effort. I was really surprised at the response."

PAO workers who were not asked to contribute voluntarily approached Fisher and Vale, also of Hernandez, and asked to be included in the effort.

"We ended up adopting two families from the Secret Santa Program," Fisher said.

The effort has netted a generous outpouring for the two families. Each child will receive eight gifts or more of presents ranging from toys to warm clothing for the winter and stockings filled with goodies. Each family will receive a complete Christmas dinner along with some other essential food items to add to their pantries.

"We are sure other offices are adopting families or donating their time towards the needy this holiday season," said Human Resources Director Harvey Hartman. "The center, via the Space News Roundup, would like to recognize these employees for their generosity."

If your office is sponsoring a special Christmas for the needy call Karen Schmidt at x38784 by Dec. 22 to arrange for a photo and details to be published in and upcoming edition of the Roundup.

American Express cash card program near lift-off

The American Express Charge Card Cash Advance Program is scheduled for implementation beginning the week of Jan. 8.

In January, AMEX will mail each cardholder a personal identification number that will allow each JSC traveler to independently access selected ATMs for cash advance purposes. Please remember the cash advance program is for business purposes only.

For the traveler's convenience, AMEX also will include a brochure to help identify all ATM and AMEX office locations where the cards can be used. JSC locations are Bldgs. 3 and 11 and all three branches of the JSC Credit Union.

During the week of Jan. 8, JSC AMEX policies and procedures will be distributed to each civil servant. Information sessions for the new AMEX Charge Card Cash Advance Program are scheduled to assist in further understanding of the program. Administrative officers and travel coordinators, as well as all interested personnel, are encouraged to attend these meetings. The information sessions will be held in Bldg. T-585, Room 113. Meetings are set for 1-2 p.m. Jan. 9; 10-11 a.m. and 1-2 p.m. Jan. 10; and 10-11 a.m. Jan. 11.

Employees who do not have cards and travel frequently may sign up by contacting their directorate's administration officer or travel coordinator. New card holders who filled out applications during the November sign-up campaign will receive their PIN numbers a few weeks after the arrival of their new cards. Applications are available from JSC's Travel Office. For more information call Nancy Porter at x34011.

Cafeterias host children's lunch

The JSC cafeterias' staffs invite employees to bring their children to lunch next week.

Employees' children and grandchildren under 12 will be treated to a half price lunch from 11 a.m.-2 p.m. Monday-Wednesday. Santa will be on hand to take last minute requests from these special JSC guests.

For additional information call the Exchange Manager at x38970.

'Toys for Tots' program under way

The "Toys for Tots" program is under way at JSC and toys are being collected in the Bldg. 3 cafeteria.

The program, sponsored by the U.S. Marines, kicked-off Wednesday during an open house hosted by Acting JSC Director George Abbey. Abbey and Gen. John R. Dailey, NASA acting deputy administrator, tossed in the first toys to benefit needy children in the Houston area.

The "Toys for Tots" program has been sponsored by the Marines since 1947. The program began in Los Angeles and has grown to include all 191 Marine Corps. reserve centers across the U.S. Toys collected in the Houston area are distributed to Salvation Army warehouses. Needy families call a hotline to determine eligibility and if qualified are given locations and a date to pick up toys.

Unwrapped new toys will continue to be collected in the Bldg. 3 cafeteria until Dec. 19.

Galileo returns data to Earth, begins two year mission to study Jupiter

NASA's Galileo spacecraft, now in orbit around the planet Jupiter, began the first scheduled return of data Sunday from its companion atmospheric probe that parachuted into the Jovian atmosphere Dec. 7.

Galileo scientists at the Jet Propulsion Laboratory spent the day Sunday checking this first batch of data to assess the quality of the information collected by the probe, said Galileo Project Scientist Torrence Johnson.

"We are all absolutely ecstatic that our tremendously ambitious, first-ever penetration of an outer planet atmosphere has been so wonderfully successful," said Bill O'Neil, Galileo Project Manager at the Jet Propulsion Laboratory. "It's especially gratifying because so many have worked so hard for nearly two decades to get this first true taste of Jupiter's atmosphere."

The probe data is the first-ever direct measurement of the giant planet's atmosphere and should reveal details of Jupiter's composition, climate and circulation. Forty minutes of data collected by the probe stored in the orbiter's onboard computer memory was radioed to Earth over four days and presented to Galileo scientists for analysis. In early February, the full collection of probe data stored on Galileo's tape recorder, up to 75 minutes' worth, will be played back to receivers on Earth.

Meanwhile, the Galileo orbiter continues to perform perfectly in orbit around Jupiter, O'Neil said. Given the spacecraft's precise targeting, he said he expects no "orbit trim" adjustments will be required to alter Galileo's orbital path prior to the so-called perijove raise maneuver, the third and last burn of the spacecraft's 400-Newton main engine scheduled for March 1996. That long-planned maneuver is designed to lift Galileo's orbit out of the high-radiation environment of Jupiter's charged-particle belts which could damage the spacecraft's electronics.

Budget outcome unpredictable

(Continued from page 1)

Clinton and Vice President Gore corrected those who used the term "non-essential" to describe furloughed workers.

"We are proud of the people who work for the federal government," they wrote. "Any Fortune 100 company would be lucky to have such a work force. Your work makes all Americans more safe, free and prosperous.… Calling furloughed workers non-essential is deeply offensive and just plain wrong. The law forced us to furlough 800,000 workers who jobs were not of an emergency nature. The law says nothing about 'essential.'"

Although Congress chose to pay furloughed employees retroactively the last time and on previous occasions, there is no way to predict what it will choose to do this time, Hartman said.

Hartman encouraged employees to follow news media reports on the status of NASA's budget legislation.

Employees can get the latest details by calling the Employee Information Service at 483-6765.

In addition, before close of business Friday, all employees are asked to provide their supervisors with a telephone number or other means by which they can be reached.

Space News Roundup

The **Roundup** is an official publication of the National Aeronautics and Space Administration, Lyndon B. Johnson Space Center, Houston, Texas, and is published every Friday by the Public Affairs Office for all space center employees.

The Roundup office is located in Bldg. 2, Rm. 181. The mail code is AP2. The main Roundup telephone number is x38648 and the fax number is x45165.

Editor ……Kelly Humphries
Associate Editor ……Karen Schmidt

Space limits film growth barriers

(Continued from page 1)

thin films in a vacuum environment, is one method of generating such advanced materials.

A prime barrier to improving epitaxial films is the limit on the quality of the vacuum that can be generated in an industrial growth chamber. To improve the material, the vacuum in which it is grown must be improved. The vacuum of space can make this improvement possible.

Epitaxial thin film growth is an approach to generating atomically ordered thin films of semiconductor oxides and metals with a reduced number of defects through the growth of material on a crystalline substrate in a vacuum. In epitaxy, a prepared surface, or substrate, is exposed in a vacuum to atomic or molecular beams of elements such as aluminum, arsenic, gallium or indium. The substrate acts as an atomic pattern, or template, upon which the atoms form crystalline thin films.

The atoms grow in layers which follow the atomic structure pattern of the substrate. A thin film of new materials then grows on top of the substrate in an atom-by-atom, atomic-layer-by-atomic-layer manner to form a "wafer" with an ultra-high purity.

NASA-JSC